



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAR 29 2016

Kavanagh Advisory Group, LLC
Attn: Tom Miller, Vice President
99 Conifer Hill Drive, Suite 201
Danvers, Massachusetts 01923

Boston Redevelopment Authority
Attn: Paul Osborn, Deputy Director, Capital Construction
Boston Marine Industrial Park
22 Drydock Avenue
South Boston, Massachusetts 02210

Re: PCB Risk-Based Disposal Approval under 40 CFR § 761.61(c)
Former Charlestown Navy Yard - Building 105, Boston MA
RTN: 3-10627

Dear Messrs. Miller and Osborn:

This is in response to the Notification¹ by Kavanagh Advisory Group, LLC and its subsidiary, First Avenue Hotel LLC (referred to collectively as "KAG"), for approval of a risk-based disposal plan to address polychlorinated biphenyl ("PCB")-contaminated building materials and soil in Building 105 located at the former Charlestown Navy Yard with an address of 105 First Avenue ("the Site") in Boston, Massachusetts. The Site contains PCB-contaminated building materials and soil that exceed the allowable PCB levels under 40 CFR § 761.61(a) for unrestricted use.

The property is currently owned by the Boston Redevelopment Authority ("BRA"). KAG is redeveloping Building 105 for reuse as a hotel and restaurant. The BRA and KAG (together the "Responsible Parties") will be responsible for implementing the PCB risk-based disposal activities described in the Notification, including any long-term maintenance and monitoring requirements. The Notification proposes a plan under the risk-based disposal option at 40 CFR § 761.61(c) that includes the following:

¹ Information was submitted by Weston & Sampson on behalf of KAG to support a PCB risk-based disposal approach for PCB remediation waste under 40 CFR § 761.61(c). Information was submitted dated June 5, 2015 (Release Abatement Measure and Risk-Based Cleanup Plan dated June 2015); December 1, 2015 (Responses to EPA Comments dated October 26 and 29, 2015); March 10, 2016 (Responses to EPA Comments dated February 23, 2016); March 14 and 15, 2016 (KAG and BRA contact information); March 16 and 17, 2016 (emails clarification on sampling results and waste disposal); March 18, 2016 (email disposal of wood floors); and March 24, 2016 (emails site ownership). These submittals will be referred to as the "Notification".

- Remove and dispose of PCB-impacted building materials (e.g., windows, wood trim, doors and frames, wood floor, etc.) remaining at the Site
- Remove or decontaminate *non-porous* PCB-impacted building materials (e.g., columns, trusses, steel plates, etc.) using abrasive blasting with a fine grit media or washing
- Decontaminate (e.g., wash, remove peeling/flaking paint, etc.) and encapsulate interior brick walls with either an epoxy coating or with new walls
- Remove and dispose of soil with PCB concentrations greater than or equal to (“≥”) 50 parts per million (“ppm”)
- Remove and dispose of concrete with PCB concentrations ≥ 50 ppm
- Remove PCB-impacted soil and concrete with ≥ 1 ppm located in utility corridors to provide clean utility corridors with PCB concentrations less than (“<”) 1 ppm
- Remove and dispose of targeted areas of soil with elevated total petroleum hydrocarbons and PCDDs/PCDFs concentrations in the main forge shop
- Install a 20-mil vapor barrier and construct new 6-inch concrete cap over entire building footprint to prevent direct exposure to residual PCBs remaining in the concrete floor and soil
- Execute a deed notice in the form of an Activity and Use Limitation (“AUL”) to document the permitted uses, restricted uses, and obligations and conditions which must be maintained to ensure that the PCBs and any other contaminants remaining at the Site pose no unreasonable risk to building users; and,
- Establish a Monitoring and Maintenance Plan (“MMP”) for the new concrete floors, for encapsulated surfaces and for indoor air.

Based on its review of the information provided in the Notification, EPA has determined that the proposed risk-based disposal plan is acceptable and that the PCBs remaining at the Site will not pose an unreasonable risk of injury to health or the environment upon completion of the proposed remedial work and provided the risk evaluation of indoor air meets risk guidelines. EPA applies this reasonable risk standard in accordance with the PCB regulations at 40 CFR § 761.61(c) and the Toxic Substances Control Act, at 15 USC § 2605(e).

The Responsible Parties may proceed with the project in accordance with 40 CFR § 761.61(c); the Notification; and, this Approval, subject to the conditions of Attachment 1. Please be aware that as the Site owner, BRA shall be responsible for recording the deed restriction described in paragraph 21 of Attachment 1. This Approval may be revoked, suspended and/or modified as described in Attachment 1, or if the EPA determines that implementation of this Approval may present an unreasonable risk of injury to health or the environment, or if there is a change in the proposed Site use.

Nothing in this Approval is intended or is to be construed to prejudice any right or remedy concerning PCBs or other federally-regulated contaminants at the Site otherwise available to the EPA under Section 6 of TSCA, 15 U.S.C. 2605, 40 CFR Part 761, or other provisions of federal law.

This Approval does not release the Responsible Parties from any applicable requirements of any other federal, state or local law, including the requirements related to cleanup and disposal of PCBs or other contaminants on the property under the Massachusetts Department of Environmental Protection ("MassDEP") regulations.

EPA encourages the compliance with greener cleanup practices for all cleanup projects, and recommends adherence to the ASTM Standard Guide to Greener Cleanups E2893-13 (Guide) for work conducted under this Approval and the Notification. Greener cleanups is the practice of integrating options that minimize the environmental impacts of cleanup actions in order to incorporate practices that maximize environmental and human benefit. Please see Section 6 of the Guide for the Best Management Practices (BMP) Process dated December 19, 2013. (See www.astm.org/Standards/E2893.htm for additional information) EPA encourages you to review the Guide and implement any practices that are feasible. If implemented, the PCB Completion Report (see Attachment 1, Condition 35) should include a section on BMP Documentation, as described in Section 6.6.5 of the Guide.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527 / Facsimile: (617) 918-0527

EPA shall consider this project complete only when it has received documents evidencing construction of the physical controls (e.g., encapsulant, vapor barrier and new concrete floor, new walls, etc.), adoption of the deed restriction, acceptable post-abatement indoor air PCB concentrations, and establishment of a long-term maintenance and monitoring plan. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,



Bryan Olson, Director
Office of Site Remediation & Restoration

Attachment 1: Risk-Based Disposal Approval Conditions
Attachment 2: Soil & Concrete Remediation Locations
Attachment 3: Confirmatory Sampling Summary Table

cc: Prasanta Bhunia, Weston & Sampson
MassDEP: RTN 3-10627

ATTACHMENT 1

**PCB RISK-BASED DISPOSAL APPROVAL CONDITIONS
FORMER CHARLESTOWN NAVY YARD – BUILDING 105 (“the Site”)
105 FIRST AVENUE / BOSTON, MASSACHUSETTS**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to *PCB remediation waste* identified in the Notification² and located at the Site.
 - a. In the event that Kavanagh Advisory Group, LLC and its subsidiary, First Avenue Hotel LLC (referred to collectively as “KAG”) or the Boston Redevelopment Authority (“BRA”) (together, the “Responsible Parties”) identifies other PCB-contaminated wastes (i.e., PCBs not identified in the Notification) subject to cleanup and disposal under the PCB regulations, the Responsible Parties will be required to notify EPA and to clean up the PCB-contaminated wastes in accordance with 40 CFR Part 761.
 - b. The Responsible Parties may submit a separate plan to address such other PCB-contaminated wastes or may modify the Notification to incorporate cleanup of such PCB-contaminated wastes under this Approval in accordance with Condition 26.
2. This Approval shall expire ten (10) years from the date of signature, unless extended, renewed, suspended, modified, revoked, or terminated in accordance with the conditions stated herein.
3. Application for renewal or extension of this Approval shall be made in writing at least 180 days, but not more than 270 days, prior to the expiration date. Application for renewal must include information to demonstrate that the institutional and engineered controls remain effective in mitigating risks from PCBs and that the Responsible Parties (or a subsequent party subject to the terms of this Approval) have met and will continue to meet all conditions of this Approval. In reviewing the application for renewal, EPA will consider whether Site controls are effective, if additional measures are necessary to ensure no unreasonable risk of injury to human health or the environment, and whether Approval conditions have been met. EPA may require the submission of additional information in connection with any renewal application.

² Information was submitted by Weston & Sampson on behalf of KAG to support a PCB risk-based disposal approach for *PCB remediation waste* under 40 CFR § 761.61(c). Information was submitted dated June 5, 2015 (Release Abatement Measure and Risk-Based Cleanup Plan dated June 2015); December 1, 2015 (Responses to EPA Comments dated October 26 and 29, 2015); March 10, 2016 (Responses to EPA Comments dated February 23, 2016); March 14 and 15, 2016 (KAG and BRA contact information); March 16 and 17, 2016 (clarification on sampling results and waste disposal); March 18, 2016 (email disposal of wood floors); and, March 24, 2016 (emails site ownership). These submittals will be referred to as the “Notification”.

4. The Responsible Parties shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
5. In the event that the activities described in the Notification differ from the conditions specified in this Approval, the conditions of this Approval shall govern.
6. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
7. The Responsible Parties must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval.
8. The Responsible Parties are responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time the Responsible Parties have or receive information indicating that the Responsible Parties or any other person have failed, or may have failed, to comply with any provision of this Approval, they must report the information to EPA in writing within twenty-four (24) hours of having or receiving the information.
9. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by the Responsible Parties are authorized to conduct the activities set forth in the Notification. The Responsible Parties are responsible for ensuring that the selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
10. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release the Responsible Parties from compliance with any applicable requirements of TSCA or any other federal, state or local law; or 3) release the Responsible Parties from liability for, or otherwise resolve, any violations of TSCA or any other federal, state or local law.
11. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

12. This Approval may be revoked if the EPA does not receive written notification from the Responsible Parties of their acceptance of the conditions of this Approval within ten (10) business days of receipt.

13. Prior to initiation of work authorized under this Approval, the Responsible Parties shall submit the following information for EPA review and/or approval;
- a. a final design for utility corridors and the new foundation(s). The Responsible Parties also shall submit the PCB analytical results for building materials (e.g., concrete floor) and soil that will be removed in these areas to support the off-site disposal for these wastes.
 - b. a certification signed by its selected abatement contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval;
 - c. a contractor work plan, prepared and submitted by the selected abatement contractor(s) describing the means and methods of PCB removal, and the containment and air monitoring that will be employed during abatement activities. This work plan should also include information on storage, handling and disposal for **all** wastes, including but not limited to removed concrete, interior debris, walls, asbestos and painted building materials, and on decontamination of field equipment; and,
 - d. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

REMEDIATION AND DISPOSAL CONDITIONS

14. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools or construction of a negative air containment system with a HEPA ventilation system to control emissions, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
15. All PCB-contaminated building materials and soil with PCB concentrations greater than or equal to (" \geq ") 50 parts per million ("ppm") shall be removed as described in the Notification. The PCB decontamination standard for soil and *porous surfaces* shall be less than or equal to (" \leq ") 1 ppm or alternatively shall be encapsulated or covered with new material (e.g., new concrete floor, new walls, etc.) as described in the Notification. (see Attachment 2)

- a. All post-decontamination verification sampling of soil and *porous surfaces* shall be performed on a bulk basis (i.e., mg/Kg). Verification samples of *porous surfaces* shall be collected in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches as described in the Notification or otherwise specified under this Approval. (See Attachment 3)
 - b. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction/analytical method(s) is validated according to Subpart Q.
16. The following requirements shall apply to PCB-contaminated *non-porous surfaces* (e.g., steel beams, trusses, metal plates, columns, etc.):
- a. The Responsible Parties shall submit to EPA an estimate of the quantity (e.g., linear footage and square footage) of trusses, beams, structural supports, steel plates, overhead and trench piping, columns (unless otherwise previously cleaned and re-painted), and garage doors that will remain or be removed from the Site. The Responsible Parties shall propose for EPA's review and concurrence a confirmatory sampling plan to support the proposed decontamination or disposal of these building materials.
 - b. The decontamination surface wipe standard for encapsulated *non-porous surfaces* and for accessible non-encapsulated *non-porous surfaces* to remain at the Site shall be $\leq 1 \mu\text{g}/100 \text{ cm}^2$ PCBs and for non-accessible *non-porous surfaces* to remain at the Site shall be $\leq 10 \mu\text{g}/100 \text{ cm}^2$ PCBs. For off-site disposal, the decontamination standards at 40 CFR § 761.61(a)(5)(ii) shall apply.
 - c. All post-decontamination sampling of non-encapsulated *non-porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100 \text{ cm}^2$) and at the frequency detailed in accordance with the Notification (see Attachment 3), except as otherwise required in accordance with Condition 16.a.
 - d. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q.
 - e. For decontaminated non-encapsulated *non-porous surfaces* that have PCB concentrations exceeding the decontamination standard, the Responsible Parties may conduct additional decontamination to achieve the required decontamination standard or the Responsible Parties shall store and dispose of these materials as TSCA-regulated waste in accordance with 40 CFR Part 761.

17. For encapsulated *porous surfaces* and encapsulated *non-porous surfaces*, the following shall apply:
 - a. Wipe sampling of encapsulated *porous* and *non-porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e., $\mu\text{g}/100\text{ cm}^2$) and at the frequency detailed in the Notification (see Attachment 3).
 - i) Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q. The laboratory reporting limit shall be $\leq 0.5\text{ }\mu\text{g}/100\text{ cm}^2$ PCBs.
 - ii) In the event that the PCB concentration of any wipe sample result is $> 1\text{ }\mu\text{g}/100\text{ cm}^2$, the Responsible Parties shall contact EPA for further discussion and direction on alternatives.
18. The Responsible Parties shall conduct indoor air sampling in accordance with EPA Method TO-10A or EPA Method TO-4A following completion of all PCB remediation activities, including encapsulation. Sufficient sample volumes shall be collected to provide a laboratory reporting limit sufficient to meet the industrial regional screening levels for total PCBs. PCB analysis shall be conducted for PCB homologues and/or PCB congeners by EPA Method 680 or EPA Method 1668. The Responsible Parties shall submit to EPA a post-abatement human health risk evaluation for inhalation risks to support the PCB remediation and disposal activities at the Site.
19. The Responsible Parties shall submit to EPA a proposed long-term monitoring and maintenance plan ("MMP") for encapsulated surfaces and indoor air in accordance with Condition 25.
20. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.
 - a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

- c. PCB-contaminated water generated during decontamination activities shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60(a).

DEED RESTRICTION AND USE CONDITIONS

21. Within thirty (30) days of completing the PCB remediation work described in the Notification and authorized in this Approval, the Responsible Parties shall submit for EPA review and approval, a draft deed restriction for the Site. The deed restriction shall include: a description of the extent and levels of contamination at the Site following remediation; a description of the actions taken at the Site; a description of the use restrictions for the Site, if applicable; and the long-term monitoring and maintenance requirements on the Site, which may be addressed by the long-term monitoring and maintenance plan ("MMP", see Condition 25). Within ten (10) business days of receipt of EPA's approval of the draft deed restriction, BRA shall record the deed restriction. A copy of this Approval shall be attached to the deed restriction.

SALE, LEASE, OR TRANSFER CONDITIONS

22. The Responsible Parties, shall notify the EPA of the sale, lease or transfer of any real estate interest in the Site that has an effect of allocating or sharing any responsibility for complying with this Approval to or with a different person. Such notice shall be in writing no later than sixty (60) days prior to such action. This notification shall include the name, address, and telephone number of the new entity acquiring such an interest in the Site. In the event that the Responsible Parties sell, lease, or transfer any such real estate interest, the Responsible Parties shall continue to be bound by all the terms and conditions of this Approval, unless EPA approves the allocation of some or all of this Approval's responsibilities to the new owner(s), lessee or transferee. The notification procedures are as follows:
 - a. The new owner(s), lessee or transferee must request, in writing, that the EPA allocate some or all obligations and responsibilities under the Approval to the new owner(s), lessee or transferee;
 - b. The EPA reviews the request, and determines whether to allocate some or all of the obligations and responsibilities under the Approval to the new owner(s), lessee, or transferee; and,

- c. The new owner(s), lessee or transferee provides written notification to the EPA of its acceptance of and intention to comply with the terms and conditions of the Approval or new approval, should EPA deem a new approval is necessary. The Approval or new approval may be withdrawn if the EPA does not receive written notification from the new owner(s), lessee or transferee of its acceptance of, and intention to comply with, the terms and conditions of the Approval or new approval within thirty (30) days of its receipt of the Approval or the new approval. Under such circumstances, all terms and conditions of this Approval will continue to be binding on the Responsible Parties.
- 23. In the event that the sale, lease or transfer of a real estate interest in the Site will involve or result in a change in the use of the Site, EPA may revoke, suspend, and/or modify this Approval or the new approval if it finds, due to the change in use, that this PCB risk-based disposal action will not be protective of health or the environment. The owner shall record any amendment to the deed restriction, resulting from any approved modification(s), within sixty (60) days of such change(s).
- 24. In any sale, lease or transfer of a real estate interest in the Site, the Responsible Parties shall retain sufficient access rights to enable it to continue to meet their obligations under this Approval, except as provided above.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

- 25. The Responsible Parties shall submit for EPA's review and approval, a detailed monitoring and maintenance plan ("MMP") for the surface barriers (i.e., new concrete floor, walls and encapsulants) and for indoor air. The Responsible Parties shall incorporate any changes to the MMP required by EPA.
 - a. The MMP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols and frequency, and analytical criteria; and reporting requirements.
 - b. The MMP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including on-site workers and other interested stakeholders.
 - c. The MMP shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the concrete floors or other surface barriers.
 - d. The Responsible Parties shall submit the results of the monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMP is necessary in order to monitor and/or evaluate the effectiveness of the new concrete floor(s) or other surface covers as an exposure barrier to PCBs.

- e. Activities required under the MMP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.
- 26. Any modification(s) in the plan, specifications, and information submitted by the Responsible Parties, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. The Responsible Parties shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.
- 27. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from the Responsible Parties to make a determination regarding potential risk.
- 28. The BRA shall record any amendment to the deed restriction, resulting from any approved change or modification(s), within sixty (60) days of such change(s). (See Condition 21).
- 29. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
- 30. Any misrepresentation or omission of any material fact in the Notification or in any future records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
- 31. Approval for these activities may be revoked, modified or otherwise altered if: EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; EPA finds that the PCBs remaining at the Site present an unreasonable risk of injury to public health or the environment; EPA finds that the institutional and engineered controls are not effective in preventing PCB exposure; EPA finds that there is migration of PCBs from the Site; or EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. The Responsible Parties may apply for appropriate modifications in the event new rules, standards, or guidance come into effect.

32. The Responsible Parties shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by the Responsible Parties to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

RECORDKEEPING AND REPORTING CONDITIONS

33. The Responsible Parties shall prepare and maintain all records and documents required by 40 CFR Part 761, including, but not limited to, the records required by Subparts J and K. The Responsible Parties shall maintain a written record of the PCB remediation work and the analytical sampling conducted under this Approval. All records shall be made available for inspection by authorized representatives of the EPA, until such time as EPA approves in writing a request for an alternative disposition of such records.
34. As required under Condition 25 of this Approval, the Responsible Parties shall submit the results of the monitoring and maintenance activities to EPA as specified in the final MMP to be approved by EPA.
35. The Responsible Parties shall submit a Final Completion Report ("Report") to the EPA in both paper and electronic format (e.g., CD-ROM) within 90 days of completion of the activities described under this Approval. At a minimum, the Report shall include: a discussion of the project activities including photo-documentation and Greener Cleanups BMPs, if implemented; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCBs removed and disposed off-site; copies of manifests and bills of lading or equivalent; and, copies of certificates of disposal or similar certifications issued by the disposer, as applicable. The Report shall also include a copy of the recorded deed restriction and a certification signed by a responsible officer verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.
36. Required submittals shall be mailed to:
- Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527 / Facsimile: (617) 918-0527
37. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self disclosure or penalty policies.

END OF ATTACHMENT 1



BUILDING 149

2ND AVENUE

BUILDING 105

9TH STREET

13TH STREET

1ST AVENUE

LEGEND:

- OPEN TRENCH
- STEEL PLATE COVERED TRENCH
- AREA OF SOIL FLOOR
- EXISTING EQUIPMENT
- USACE and METCALF & EDDY SOIL SAMPLING LOCATION (1982-1995)
- EXISTING MONITORING WELL LOCATION
- STONE & WEBSTER SOIL SAMPLING LOCATION (1998-2000)
- STONE & WEBSTER CONCRETE SAMPLING LOCATION (1998-2000)
- WESTON & SAMPSON CONCRETE SAMPLE LOCATION
- WESTON & SAMPSON SUB-SLAB VAPOR IMPLANT
- COMBINED WESTON & SAMPSON SOIL BORING LOCATION AND SOIL GAS LOCATION
- WESTON & SAMPSON SOIL BORING LOCATION
- WESTON & SAMPSON MONITORING WELL LOCATION
- PROPOSED CONCRETE REMOVAL (PCBa > 50 ppm)
- PROPOSED SOIL REMOVAL AREAS (SEE NOTE 7)

NOTES:

1. BASE MAP TAKEN FROM PLAN TITLED "SITE PLAN" PREPARED BY STONE & WEBSTER INC.
2. THE LOCATIONS OF VAULTS, TRENCHES AND PITS AND THE CLASSIFICATION OF THE FLOORING TYPES ARE APPROXIMATE. THE INFORMATION IS BASED ON BUILDING DRAWINGS THAT WERE MADE AVAILABLE BY THE NATIONAL PARKS SERVICE (NPS) AND OBSERVATIONS MADE BY THE U.S. ARMY CORPS OF ENGINEERS AND STONE & WEBSTER.
3. INVENTORY OF PROCESS EQUIPMENT PROVIDED BY NPS. EQUIPMENT LOCATIONS ARE APPROXIMATE.
4. LOCATIONS OF HISTORIC SOIL AND CONCRETE SAMPLES TAKEN FROM THE FIGURES PROVIDED IN STONE & WEBSTER'S DATA SUMMARY REPORT DATED OCTOBER 2000 AND THE INTERIM EVALUATION REPORT II DATED AUGUST 2002.
5. WESTON & SAMPSON SOIL BORINGS, MONITORING WELLS, CONCRETE SAMPLES AND SOIL VAPOR IMPLANTS INSTALLED BETWEEN SEPTEMBER 2014 AND MARCH 2015.
6. WESTON & SAMPSON CONCRETE SAMPLES COLLECTED BETWEEN SEPTEMBER 2014 AND JANUARY 2015.

7. DEPTH OF EXCAVATION MEASURED IN FEET BELOW THE BOTTOM OF CONCRETE SLAB IN AREAS WHERE THE CONCRETE FLOOR SLAB IS INTACT, AND DEPTH BELOW GROUND SURFACE IN AREAS WITH EXPOSED SOIL FLOOR. DEPTH OF EXCAVATION IS 1 FOOT IN ALL AREAS UNLESS OTHERWISE INDICATED. FINAL DEPTHS OF EXCAVATION TO BE DETERMINED BASED ON POST-EXCAVATION CONFIRMATORY VERIFICATION TESTING RESULTS.
- SK-1: SK-1 REVISSED FEBRUARY 2016 TO INCLUDE LOCATION OF INTERIOR BRICK WALL TO REMAIN EXPOSED AS PART OF THE PROPOSED HOTEL DEVELOPMENT

- REMEDIATION LOCATION
- BRICK EXTERIOR WALL TO REMAIN EXPOSED AS PART OF THE DEVELOPMENT (SEE ATTACHED SHEET 028 FOR INTERIOR ELEVATION VIEW)

SK-1 (Revised)
SOIL & CONCRETE REMEDIATION LOCATIONS
BUILDING 105
FORMER CHARLESTOWN NAVY YARD
FEBRUARY 2016 SCALE: 1"=16'

Attachment 2

TABLE D-1 (Revised 3/15/2016)
Confirmatory Sampling Summary
Former Building 105
Boston, Massachusetts

Media	Material	Accessibility ⁵	Extent/Quantity (Total) ⁴	Units	Frequency	Sample Type	No. Samples	Comments
Soil ¹	PCBs \geq 50 ppm ²	To Be Removed	2,200	SF	1/100 sf	Bulk	69	See Table D-2 and Plan SK-1 for additional details
			625	LF	1/25 lf			
Concrete ¹	PCBs \geq 50 ppm ²	To Be Removed	975	LF	1/25 lf	Bulk	60	See Table D-2 and Plan SK-1 for additional details
Equipment	Remain	Accessible	38	Unit(s)	20%	Wipe	8	Equipment will be wiped clean and wipe tested
	Removed	To Be Removed	124	Unit(s)	10%	Wipe	13	Equipment will be wiped clean and wipe tested
Porous	Exposed Brick	Accessible	1,650*	SF	1/400 sf	Wipe	5	Accessible porous surfaces to be wipe tested following encapsulation
Non-Porous ³	Steel Columns < 8 Feet	Accessible	41	Column(s)	20%	Wipe	10	Includes steel columns in the Main Forge Shop that were previously decontaminated along with former equipment.
	Trusses, Beams, Structural Supports, and Columns > 8 Feet	Inaccessible	64,000	SF	1/1,600 sf	Wipe	40	Includes steel trusses, beams and other structural members that comprise the building's roof.
	Steel Plates, Overhead & Trench Piping, and Garage Doors	To Be Removed	32,000	SF	1/1,600 sf	Wipe	20	Steel plates and piping to be decontaminated, wiped clean, and wipe tested.
	Electrical Boxes and Instrument Cabinets	To Be Removed	2,400	SF	1/400 sf	Wipe	6	Previously decontaminated electrical boxes will be wiped clean and wipe tested.
TOTAL							231	

Notes:

SF - square feet

LF - linear feet

"Unit" - Former equipment within the building

"Column" - Accessible steel columns in the Main Forge Shop

"Remain" - number of units to remain as part of the development

"Removed" - number of units to be removed and recycled off-site as part of the development

*Area includes one brick wall in the Main Forge Shop to be exposed/encapsulated. See Plan SK-1 for the exposed brick wall location

1. See Table D-2 for additional details on the collection of soil and concrete confirmatory samples.

2. Includes removal of soil and concrete at any location with PCB concentrations greater or equal to 50 mg/kg.

3. Non-porous building components will be decontaminated as described in the Risk-Based Cleanup Plan and wipe tested.

4. With the exception of equipment to be removed, media quantities in the above table do not include materials to be removed as part of the cleanup. Soil, concrete, porous and non-porous building materials will be characterized for disposal prior to off-site transportation and disposal. Disposal options for PCB contaminated materials will be based on in-situ concentrations.

Attachment 3